

Page 18, amend the fourth full paragraph as follows:

B9 The processing unit 14 may be used to actuate ~~meterised~~ motorized valves to isolate leaking parts of the system or indeed to shut off the water supply completely by activation of the stopcock 126 for example.

IN THE CLAIMS:

1. (Currently Amended) A method of determining the presence and flow rate of a leakage from a fluid system, comprising:

B10 sensing the vibrations induced by passage of the fluid through ~~the~~ leakages said leakage;

segmenting the sensed vibrations into at least two spectral bands;
and

comparing ~~the~~ amplitudes of the spectral bands with predetermined values to determine flow rate.

2. (Original) A method according to claim 1, further comprising attaching a sensor to the fluid system to obtain data therefrom indicative of fluid flow therethrough.

3. (Original) A method according to claim 2, wherein the sensor includes a piezo-electric material.

4. (Original) A method according to claim 3, wherein the sensor includes a PVDF film.

5. (Original) A method according to claim 2, wherein the sensor comprises one of a strain gauge, geophone or hydrophone.

6. (Cancelled.)

7. (Currently Amended) Apparatus for determining the presence of a leakage from a fluid system, comprising:

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a vibration sensor for sensing vibrations induced by passage of the fluid through ~~the leakages~~, said leakage;

a segmentor for segmenting the sensed vibrations into at least two spectral bands; and ,

a comparator for comparing ~~the~~ amplitudes of the spectral bands with predetermined values to determine flow rate.

8. (Original) Apparatus as claimed in claim 7 wherein the sensor includes a piezo-electric material.

9. (Original) Apparatus as claimed in claim 8 wherein the sensor includes a PVDF film.

B12 10. (Currently amended) Apparatus as claimed in claim 8 wherein the sensor comprises one of a ~~train~~ strain gauge, geophone or hydrophone.

11.-12. (Cancelled.)

B13 13. (Currently Amended) ~~A leakage detection system as claimed in claim 12, further comprising apparatus for determining the presence of a leakage from a fluid system comprising a vibration sensor for sensing vibrations induced by passage of the fluid through the leakages,~~ A leakage detection system for use in a fluid carrying system, said leakage detection system comprising:

at least one sensor mountable to the exterior of a pipe of the fluid carrying system, said sensor comprising a vibration sensor for measuring vibrations in the pipe caused by fluid flow in the pipe and providing output signals indicative of the vibrations;

a processing unit for receiving signals from the at least one sensor and for comparing the received signals with reference data to determine the presence of a leak;

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can
a segmentor for segmenting the sensed vibrations into at least two spectral bands; and ,

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a comparitor for comparing the amplitudes of the spectral bands with predetermined values to determine flow rate.

15. (Previously Added) Apparatus as claimed in claim 13 wherein the sensor includes a piezo-electric material.

16. (Previously Added) Apparatus as claimed in claim 15 wherein the sensor includes a PVDF film.

B14
17. (Currently Amended) Apparatus as claimed in claim 15 wherein the sensor comprises one of a ~~train~~ strain gauge, geophone or hydrophone.

(Applicant's Remarks are set forth hereinbelow, starting on the following page.)